

ABSTRACT OF THE DISCLOSURE

An arterial closure device for use following coronary catheterization procedures to close arterial access openings through the arterial wall while permitting post operative flow through the artery includes a housing having proximal and distal ends, and defining a longitudinal axis, first and second arterial tissue everting members mounted adjacent the distal end of the housing and first and second jaw members mounted adjacent the first and second tissue engaging members. The first and second arterial tissue everting members are dimensioned for at least partial positioning within the arterial access opening in the arterial wall and are deployable in at least a radial outward direction relative to the longitudinal axis of the housing to engage respective opposed arterial tissue portions on opposed sides of the opening and move the tissue arterial portions to an everted condition thereof. The first and second jaw members are adapted for relative movement between an open position to facilitate positioning about the arterial tissue portions in the everted condition and a closed position to at least partially draw the arterial tissue portions together to an at least partial approximated condition. An electrode is associated with at least one of the first and second jaw members and arranged to contact the respective arterial tissue portions. The electrode is adapted to be connected to a radiofrequency energy source whereby energy is transmitted through the electrode to thermally fuse the arterial tissue positions between the first and second jaw members to substantially close the opening. Preferably, an electrode is associated with each of the first and second jaw members. Each electrode may be configured as a bipolar electrode.